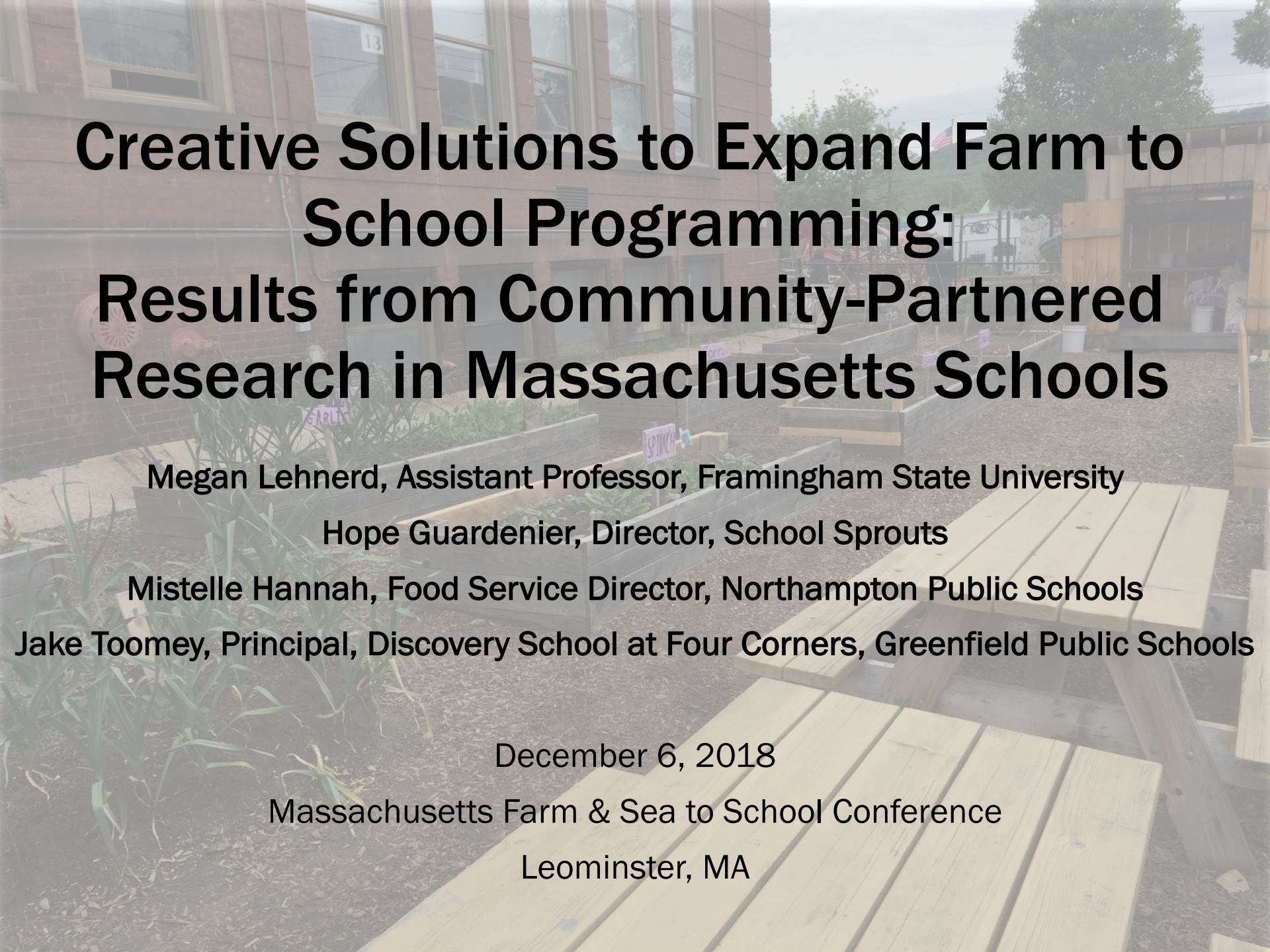# As you come in...

- Please introduce yourself using the activity that we have set up.

Creative Solutions to Expand Farm to School Programming: Results from Community-Partnered Research in Massachusetts Schools

Megan Lehnerd, Assistant Professor, Framingham State University

Hope Guardenier, Director, School Sprouts

Mistelle Hannah, Food Service Director, Northampton Public Schools

Jake Toomey, Principal, Discovery School at Four Corners, Greenfield Public Schools

December 6, 2018
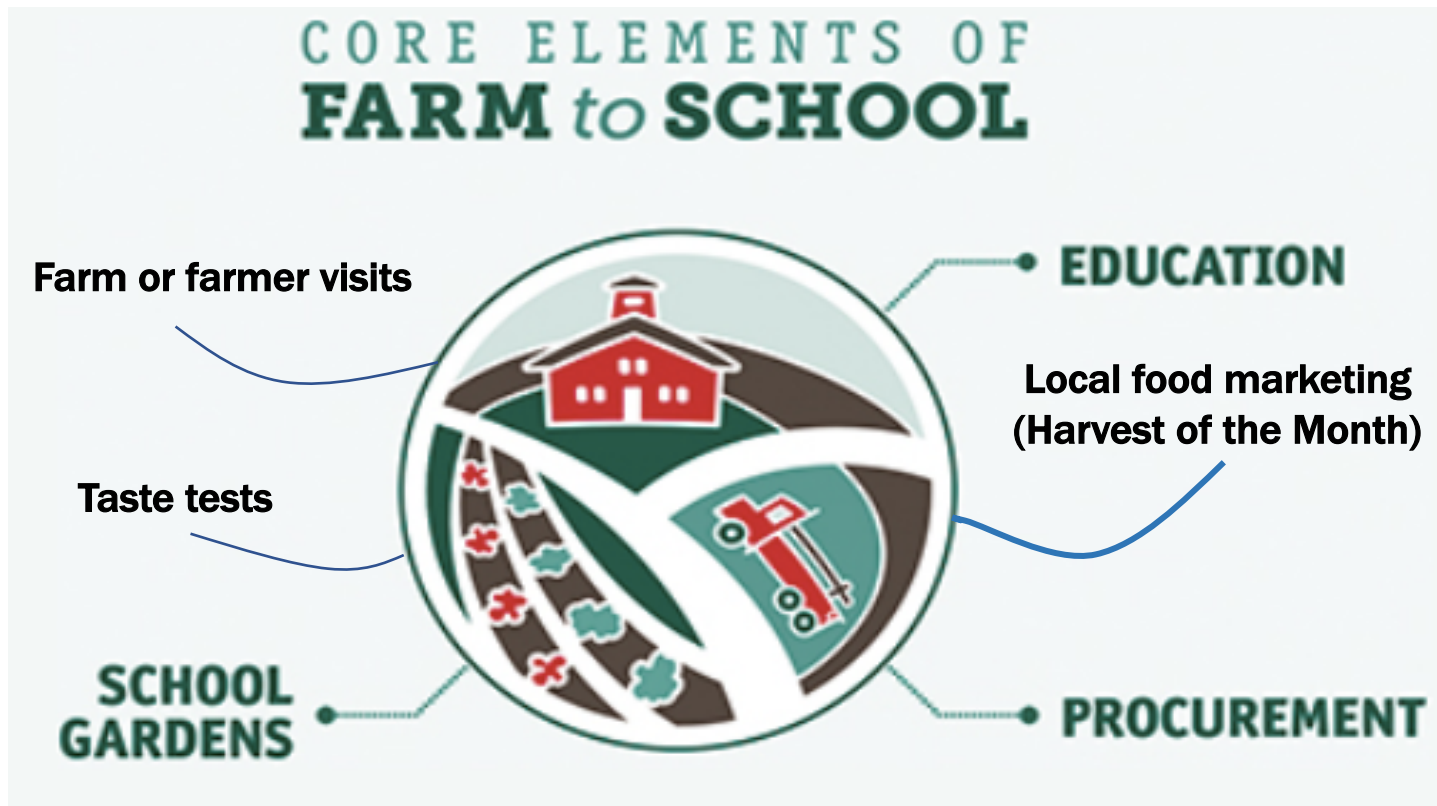
Massachusetts Farm & Sea to School Conference

Leominster, MA

Agenda

- Study Background
  - Research partnership development
  - Study design
  - Key results
- Panel Discussion
  - Need for cheerleaders
  - Integration across subjects
  - Family engagement
  - Community partnerships
- Action Item Brainstorming Activity
- Conclusion

Defining Farm to School (FTS)

CORE ELEMENTS OF
FARM *to* SCHOOL

Farm or farmer visits

EDUCATION

Local food marketing
(Harvest of the Month)

Taste tests

SCHOOL GARDENS

PROCUREMENT

Image: National Farm to School Network

Motivations for this Research

- Some schools have established & expanded programs more quickly
    - How & Why?
- Enhanced understanding of school perspective could mean:
    - More efficient & impactful program design
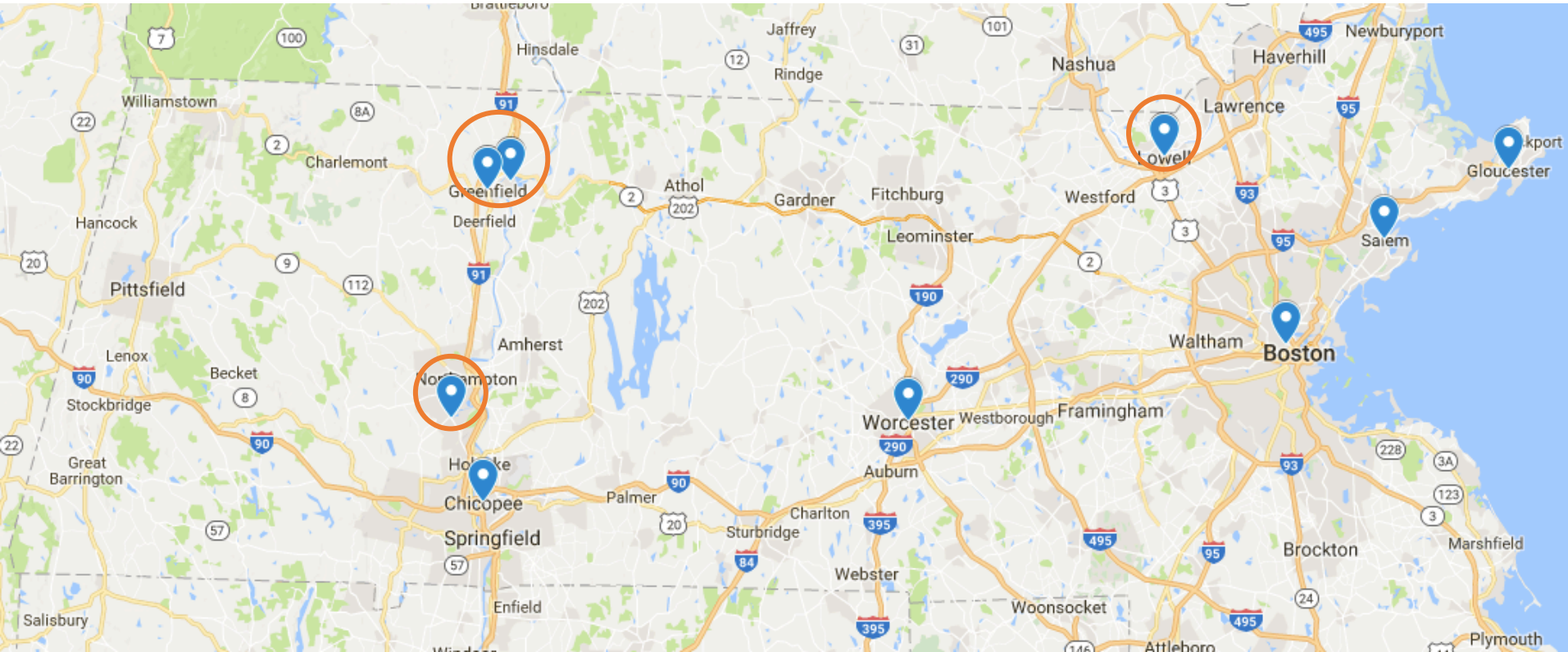   - Evidence to support funding & policy

Aims & Study Design

AIM: To describe school stakeholder decisions to engage in FTS and factors that contributed to program expansion.

Method: Key informant interviews
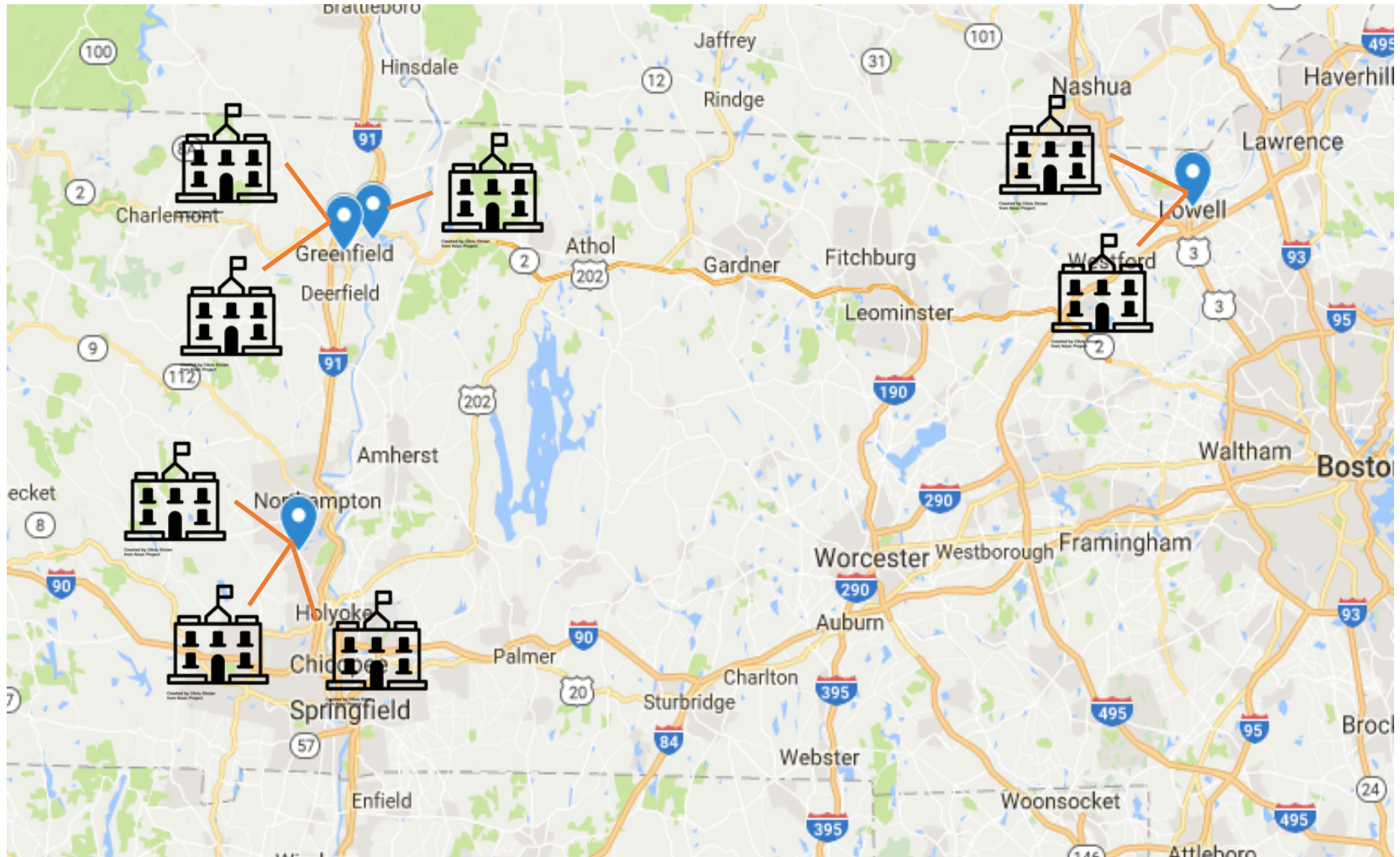
Created by Oliviu Stoian from Noun Project

Sampling Schools

Sampling Schools

Demographics of Study Schools, by District

	D1			D2	D1		D4	
	S1	S2	S3	S4	S5	S6	S7	S8
FTS Program Inventory Score	39	34	37	20	28	53	50	33
Race/Ethnicity (%)								
Af. American	1	2	2	0	1	3	9	6
Asian	4	4	4	0	0	1	24	13
Hispanic	13	10	11	17	9	14	38	32
White	77	82	82	71	90	76	25	45
Other^	5	4	2	12	0	7	4	4
Economically Disadvantaged (%) [a]	29	39	30	54	26	65	64	43
First Language Not English (%)	5	2	1	14	2	2	31	22
Participation in CEP [b]	N	N	N	Y	Y	N	Y	Y

[a] Economically disadvantaged is defined as the percentage of children who were reported to participate in at least one state-administered public assistance program, including the Supplemental Nutrition Assistance Program (SNAP); the Transitional Assistance for Families with Dependent Children (TAFDC); the Department of Children and Families' (DCF) foster care program; and MassHealth (Medicaid).

[b] Participation in CEP or the Community Eligibility Provision uses community income and historical school lunch data to qualify a school or district to serve all students to free breakfast and lunch, without the need to submit eligibility paperwork for individual families.[34]
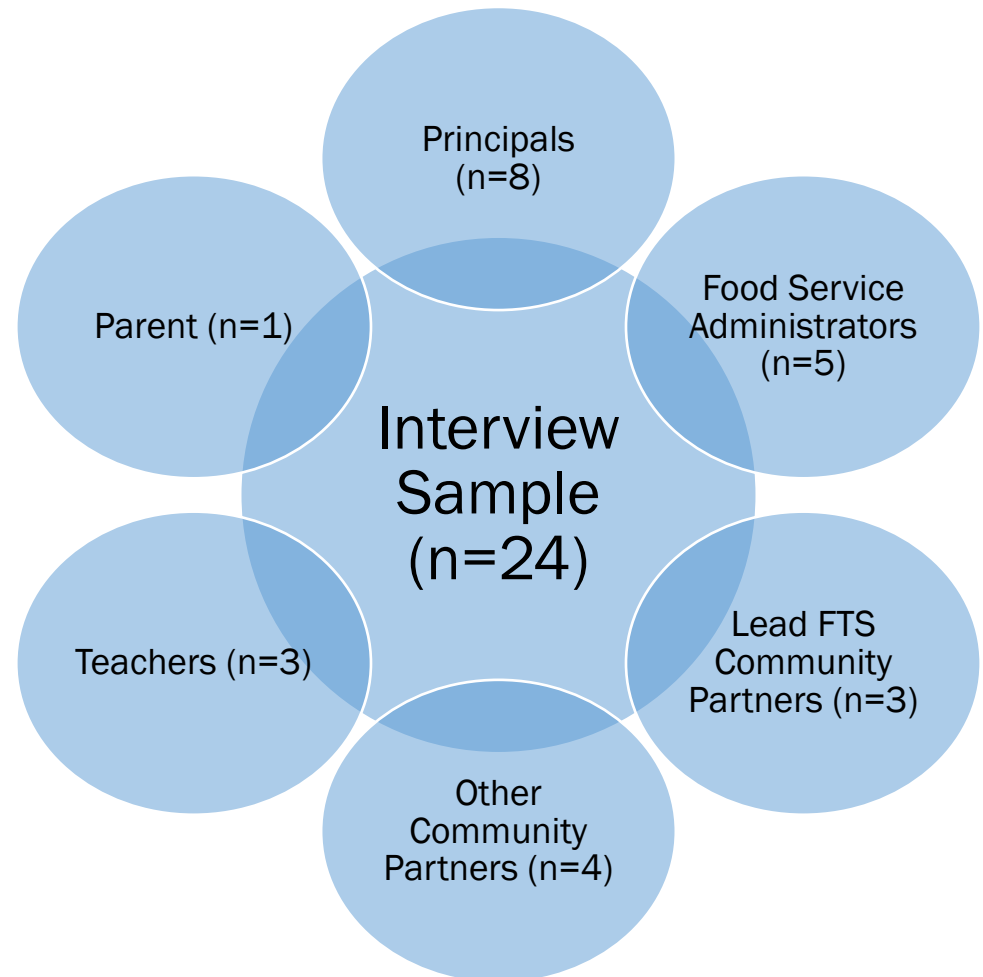
Methods

At School Site Visits – May & June 2017

Key informant interviews (n=24)

- Purposive, snowball
- Interview guide
  - Characteristics of FTS activities influencing adoption (DI theory)
  - **Facilitators of program expansion**
- 17 in-person, 7 by phone

Interview Sample (n=24)

- Principals (n=8)
- Food Service Administrators (n=5)
- Lead FTS Community Partners (n=3)
- Other Community Partners (n=4)
- Teachers (n=3)
- Parent (n=1)

Analysis

Key Informant Interviews

Generating interview themes

- Deductive approach = preliminary codebook
- Peer debriefing to resolve disagreements & finalize codes
  - Inter-rater reliability (80-100%)
- Remaining transcripts analyzed independently
- NVivo for MAC Software

Key themes tied to program expansion

Philosophy of hands-on, cross-subject learning

Personal values & community culture

Multi-level support network

Strong community partner

Great way to engage families

Cheerleaders are essential

Making FTS Compatibility

Philosophy of hands-on, cross-subject learning

Personal values & community culture

"[Garden educator] wou... ...sons, with area ...s decorating the ... what they ...go into literacy ...acher, S7

...sed education, ...social, emotional ...e whether they're ...en, it's really ...Principal, S6

Respect all critters

We Love and Respect Our Maple School Garden

"The first is strong support from top administrators. If the ... school." – Food Service Administrator, D3

Multi-level support network

Strong community partner

Key topics for panel discussion

- Need for cheerleaders in different positions within the school & district
- Integration of hands-on, cross-subject learning
- Importance of community/private partnerships
- Engaging families in unique ways

Hope Guardenier, Director, School Sprouts

Mistelle Hannah, Food Service Director, Northampton PS

Jake Toomey, Principal, Discovery School at Four Corners, Greenfield PS

Megan Lehnerd, Assistant Professor, Framingham State University

Discussion Activity

With those around you, discuss:
- Where are you on the path of farm to school?
- Where do you want to go?
- What do you need to get there?

Conclusions

- Program expansion → Integration into various subjects, community partnerships, and support from multiple levels including families and school/district cheerleaders

What next steps did you brainstorm?

Acknowledgements

- Dissertation Committee, Mentors, & Research Assistant

- Funders – Newman's Own Foundation, USDA AFRI & Specialty Crops grants

- Community Partners & Content Experts – NOF Nutrition Cohort, MA Farm to School Project

- Participants – Schools & Key Informants

Thank You!

Strengths & Limitations

- Use of DI theory to frame Aim 2

  - Cross-sectional & retrospective

- Community-oriented approach to collect primary data

  - Selection bias, limited generalizability

KI Interview Guide Example

4. What was first activity or step the school/district took when they first started out with farm to school?
   [Prompt with examples – i.e. school garden, serving local food, nutrition education, Harvest of the Month]

5. What was appealing about this as the first activity?
   a. Follow-up questions, if not covered in the answer:
      1. What specific advantages did you think it would provide? (Relative advantage)
      2. How did observing the success of other schools/districts influence your decision? (Observability)
      3. In what ways did you see XXX fitting in well with your school/district? (Compatibility)
      4. How complicated did you feel like XXX would be to add to what your school/district was already doing? (Complexity)
      5. What, if anything, did you feel like you might lose if you tried out XXX and it didn't work? (Trailability)
         1. Follow-up, if needed: How impactful did you think that potential loss might be?
         2. How easy or hard did you think it would be to recover from any losses?

6. Describe your role in the decision to try the activity.

Changes over time

7. Describe how the program has changed over time [or since you've been working with the school/district]?

   a. Follow-up questions, if not covered in the answer:
      1. Which activities have been added since the beginning?
         [Note: be sure they talk about the addition of new activities or elements – i.e. started serving local food when they didn't before VS. adding onto existing activities – i.e. built 2 more new gardens in addition to the one they had]
      2. What are some of the reasons that these activities were added?
      3. Can you think of any significant factors that helped the school/district in deciding to try more F2S activities?
         [Prompt: has the community eligibility provision been a factor? Logistical assistance like Farmlogix or other types of software/aggregators?]

8. [If Harvest of the Month hasn't already been discussed].
   Are you familiar with the Harvest of the Month campaign?
   The Harvest of the Month campaign promotes different Massachusetts-grown foods each month in school cafeterias by highlight each month's food at least twice on the school menu. For example, September focuses on tomatoes and December focuses on carrots. Students are encouraged to

Table 4.3. Farm to School Program Inventory Score and Cluster of Activities, by School

	District 1			District 2	District 3		District 4	
	School 1	School 2	School 3	School 4	School 5	School 6	School 7	School 8
Farm to School Program Inventory Score	39	34	37	20	28	53	50	33
Farm to School Activities								
Active school garden	X*	X	X	##		X*	X*	X
Local food served in school meals	X*	X*	X*	X*	X	X	X	X*
Education in F2S content areas	X	X	X*		X	X	X	X
Visits from farmers, chefs, and others in food industry				X	X	X	X	X
Field trips to farms, community gardens, Farmers' Markets, composting or other food businesses	X	X*			X	X	X	X
Harvest of the Month	X	X	X	X	X	X	X	X
Other Local Food Promotion Program	X	X	X				X	
Classroom or in-school growing	X			X				
School community-wide events	X	X	X			X	X	X
Sends local produce home	X	X						
Composting program within the school					X*	X		
Taste tests provided	X	X	X		X	X	X	X
Garden produce served in school meals or taste tests	X	X	X				X	
FoodCorps member assigned to school							X	

*Indication of first FTS activity reported by key informants. Multiple * within one school indicates an instance of conflict around which activity occurred first.

School 4 elementary has an active garden but it is maintained and utilized just by afterschool and summer programs

Figure 1: Key Informant Interview Themes, Framed by Diffusion of Innovations Theory

Part A: Emerging Themes for Farm to School Adoption
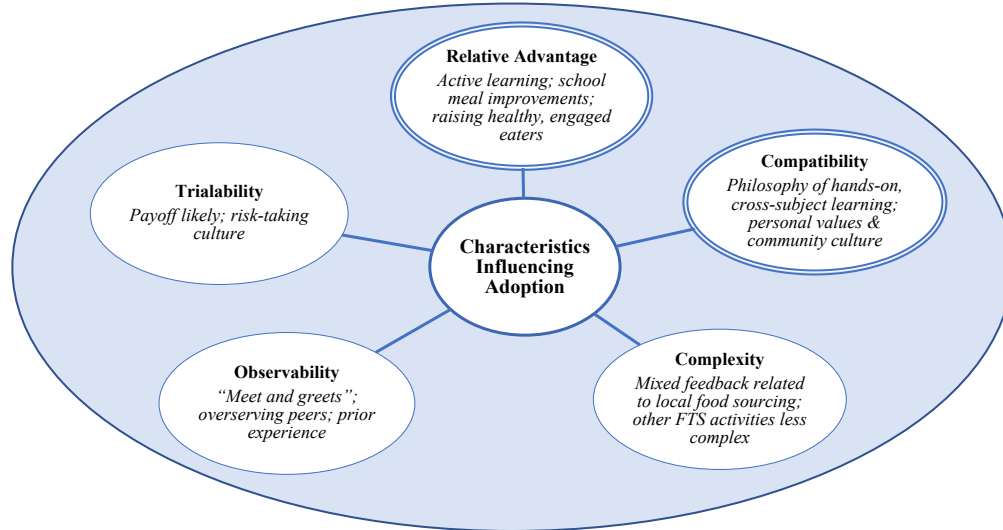
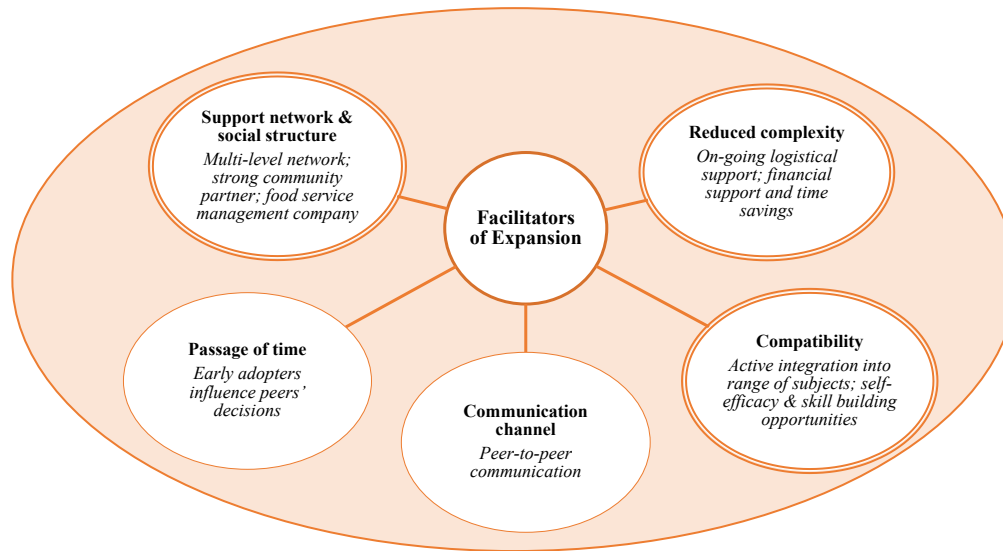**Part B**: Emerging Themes for Farm to School Expansion

Fig. 1: Themes arose from key informant interviews utilizing constructs from Diffusion of Innovation Theory. The presence of a double line indicates a major theme. (a) Interviewees at all study schools were asked about the characteristics of farm to school that influenced the decision to adopt. (b) Interviewees at the four schools with more comprehensive programs were asked about the factors that facilitated expansion.

FTS Adoption – Relative Advantage

Active learning

School meal improvements

Raising healthy, engaged eaters

FTS Adoption – Compatibility

Philosophy of hands-on, cross-subject learning

Personal values & community culture

"*[Garden educator] wou...*"

Respect all critters

We Love and Respect Our Maple School Garden

...sons, with area ...s decorating the ...l what they ...go into literacy ...acher, S7

...sed education, ...social, emotional ...e whether they're ...en, it's really Principal, S6
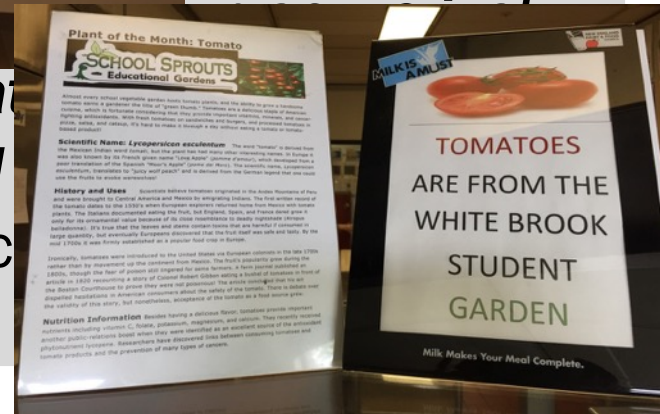
FTS Expansion – Decreased complexity

On-going logistical support

Financial support and time savings

"We used to mar
applications, f
balances...once w

THESE THINGS GO IN THE GREEN COMPOST BAG:

AND THESE GO IN THE TRASH (black bag)

moved that
that [local
Food Servic

Plant of the Month: Tomato
SCHOOL SPROUTS Educational Gardens

TOMATOES ARE FROM THE WHITE BROOK STUDENT GARDEN

MILK IS A MUST

Milk Makes Your Meal Complete.

FTS Expansion – Support Network & Social Structure

Multi-level support network

Strong community partner

Food service management company